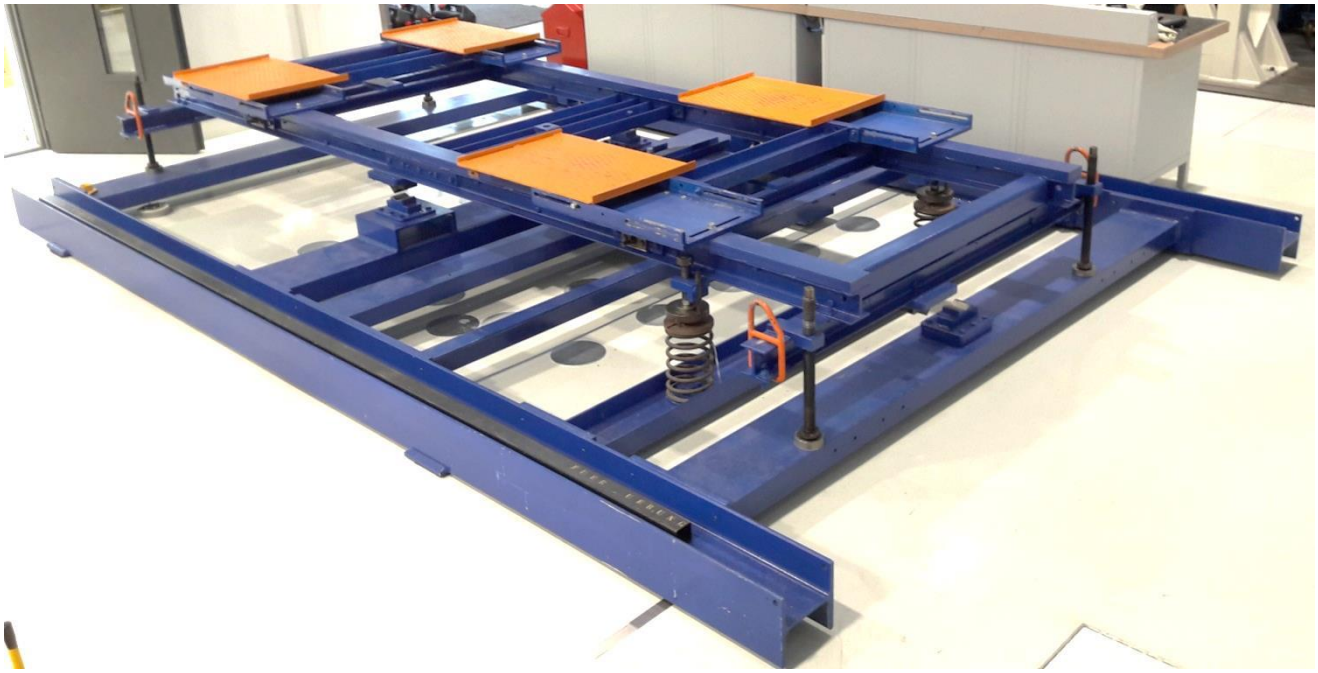
MoI/GoG-test rig



Main application

- Calculation of MoI/ CoG of a vehicle

Technical data

- Total length: 5000mm
- Width: 3400mm
- Height (without crane): approx. 500mm

Specimen

- Passenger vehicles
  - wheelbase: 3300mm – 1780mm
  - track width: 1130mm – 1900mm
  - length: 2500mm – 4500mm
- Max. weight: approx. 3500kg

Characteristics

- Plates horizontally adjustable (± 120mm)
- Rotation around x-, y-, z-axis
- Allowed total weight: approx. 3500kg
- Max. crane load: 4x 2000kg

Location

Fahrzeugtechnisches Versuchszentrum Dresden
Chair of Automobile Engineering
August-Bebel-Straße 32
01219 Dresden

Measured values

- Mass of vehicle
- Center of gravity
- Moments of inertia around x-, y-, z-axis

Measurement devices

- Acceleration sensor
- Wheel load scale

Components of test rig

- Wheel load scale on measurement surface (4 pieces)
- Pendulum frame (adjustable for wheelbase and track width)
- Springs (3 sets for different vehicle loads)
- Crane with lifting frame used for vehicles
- Acceleration sensor

Software for controlling and data collection

- Analysis: Matlab, Excel

Available supply in test cell

- 230V- supply
- Three-phase current supply

Reference projects

Diverse investigations for OEM

Contact persons

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